ABSTRACT

The invention provides a semiconductor apparatus provided with at least one set of buried channel type first conductive type MOS transistor and surface channel type first conductive type MOS transistor on the same substrate, in which a first conductive type impurity region is provided below a gate electrode of the buried channel type and surface channel type MOS transistors and between source drain regions. Further, the invention provides a solid state image pickup device having a photoelectric conversion portion and a pixel including a plurality of transistors formed in correspondence to the photoelectric conversion portion, in a substrate, wherein the plurality of transistors includes a buried channel type first conductive type MOS transistor and a surface channel type first conductive type MOS transistor, and a first conductive type impurity region is provided below a gate electrode of the buried channel type and surface channel type MOS transistors and between source drain regions.

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